

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of controlling a semiconductor dicing saw, comprising:

dynamically adjusting a saw cut pattern of the semiconductor dicing saw during a sawing operation of at least a portion of a semiconductor wafer by adjusting where in a path of the saw for a first saw cut across the semiconductor wafer the saw proceeds to a next saw cut across the semiconductor wafer.

2. (Original) The method of Claim 1, wherein dynamically adjusting comprises dynamically adjusting a saw cut pattern of the semiconductor dicing saw based on detection of a saw blade of the dicing saw contacting the semiconductor wafer.

3. (Original) The method of Claim 2, wherein dynamically adjusting comprises:

terminating a current saw cut of the semiconductor dicing saw based upon detection that the saw blade no longer contacts the semiconductor wafer; and proceeding to a subsequent saw cut upon termination of the current saw cut.

4. (Original) The method of Claim 3, wherein proceeding to a subsequent saw cut further comprises beginning the subsequent saw cut at a start position based upon detection of when the saw blade is in contact with the semiconductor wafer during the current saw cut.

5. (Currently Amended) ~~The method of Claim 3,~~ A method of controlling a semiconductor dicing saw, comprising:

dynamically adjusting a saw cut pattern of the semiconductor dicing saw during a sawing operation of at least a portion of a semiconductor wafer based on detection of a saw blade of the dicing saw contacting the semiconductor wafer;
wherein dynamically adjusting comprises:
terminating a current saw cut of the semiconductor dicing saw based upon detection that the saw blade no longer contacts the semiconductor wafer; and
proceeding to a subsequent saw cut upon termination of the current saw cut;
and

wherein terminating a current saw cut comprises:
detecting that the saw blade no longer contacts the semiconductor wafer;
waiting a predefined time and/or distance of travel of the saw blade after it is detected that the saw blade no longer contacts the semiconductor wafer; and
terminating the current saw cut if after the predefined time and/or distance the saw blade still no longer contacts the semiconductor wafer.

6. (Original) The method of Claim 2, wherein dynamically adjusting a saw cut pattern of the semiconductor dicing saw based on detection of a saw blade of the dicing saw contacting the semiconductor wafer comprises:

detecting a level of strain of the saw during a saw cut; and
dynamically adjusting a saw cut pattern of the semiconductor dicing saw based on the detected level of strain indicating when the saw blade is contacting the semiconductor wafer.

7. (Currently Amended) ~~The method of Claim 6,~~ A method of controlling a semiconductor dicing saw, comprising:

dynamically adjusting a saw cut pattern of the semiconductor dicing saw during a sawing operation of at least a portion of a semiconductor wafer based on detection of a saw blade of the dicing saw contacting the semiconductor wafer;
wherein dynamically adjusting a saw cut pattern of the semiconductor dicing saw based on detection of a saw blade of the dicing saw contacting the semiconductor wafer comprises:

detecting a level of strain of the saw during a saw cut; and
dynamically adjusting a saw cut pattern of the semiconductor dicing saw
based on the detected level of strain indicating when the saw blade is contacting the
semiconductor wafer; and

wherein detecting a level of strain comprises detecting strain associated with a drive shaft of the saw and/or sensing current provided to a drive motor of the saw.

8. (Currently Amended) ~~The method of Claim 6,~~ A method of controlling a semiconductor dicing saw, comprising:

dynamically adjusting a saw cut pattern of the semiconductor dicing saw
during a sawing operation of at least a portion of a semiconductor wafer based on
detection of a saw blade of the dicing saw contacting the semiconductor wafer;

wherein dynamically adjusting a saw cut pattern of the semiconductor dicing
saw based on detection of a saw blade of the dicing saw contacting the semiconductor
wafer comprises:

detecting a level of strain of the saw during a saw cut; and
dynamically adjusting a saw cut pattern of the semiconductor dicing saw
based on the detected level of strain indicating when the saw blade is contacting the
semiconductor wafer; and

wherein dynamically adjusting a saw cut pattern of the semiconductor dicing saw based on the detected level of strain indicating when the saw blade is contacting the semiconductor wafer comprises dynamically adjusting a saw cut pattern of the semiconductor dicing saw if the detected level of strain falls below a predefined strain threshold.

9. (Original) The method of Claim 8, wherein the predefined strain threshold is based on cut depth, wafer thickness, blade wear and/or blade rotational speed.

10. (Original) The method of Claim 1, further comprising mapping a shape of at least a portion of the semiconductor wafer based on the dynamically adjusted saw cut pattern.

11. (Currently Amended) ~~The method of Claim 10,~~ A method of controlling a semiconductor dicing saw, comprising:
dynamically adjusting a saw cut pattern of the semiconductor dicing saw during a sawing operation of at least a portion of a semiconductor wafer; and
mapping a shape of at least a portion of the semiconductor wafer based on the dynamically adjusted saw cut pattern;

wherein mapping a shape comprises mapping a shape of the at least a portion of the semiconductor wafer based on detecting when the saw blade is contacting the at least a portion of the semiconductor wafer.

12. (Currently Amended) ~~The method of Claim 10,~~ A method of controlling a semiconductor dicing saw, comprising:
dynamically adjusting a saw cut pattern of the semiconductor dicing saw during a sawing operation of at least a portion of a semiconductor wafer; and
mapping a shape of at least a portion of the semiconductor wafer based on the dynamically adjusted saw cut pattern;

wherein mapping a shape is carried out based on a first cutting pass of the at least a portion of the semiconductor wafer.

13. (Currently Amended) The method of Claim ~~[[10]]~~12, further comprising establishing a path of the saw blade for a second cutting pass of the semiconductor wafer based on the mapped shape of the at least a portion of the semiconductor wafer.

14. (Currently Amended) ~~The method of Claim 2, further comprising~~ A method of controlling a semiconductor dicing saw, comprising:

dynamically adjusting a saw cut pattern of the semiconductor dicing saw during a sawing operation of at least a portion of a semiconductor wafer based on detection of a saw blade of the dicing saw contacting the semiconductor wafer; and
providing a minimum saw cut length for each saw cut irrespective of detection of the saw blade of the dicing saw contacting the semiconductor wafer.

15. (Original) The method of Claim 1, wherein the wafer comprises a SiC wafer.

16. (Original) The method of Claim 1, wherein at least one saw cut of the saw cut pattern does not extend completely through a thickness of the semiconductor wafer.

17.-30. Cancelled.